WHAT IS CLAIMED IS:

1. An information processing equipment that carries out a communication path establishment processing at the time when a power source is turned on, the information processing

5 equipment comprising:

a connector that is connected with a communication line based on the needs;

a transmission/reception mechanism that transmits/receives data through said communication line

10 connected to said connector;

a connection status deciding unit that decides whether said communication line has been connected to said connector or not; and

a control unit that controls said

15 transmission/reception mechanism to carry out an initialization processing for establishing a communication path connected to said communication line,

wherein said control unit controls not to carry out the initialization processing when it has been confirmed

20 that said communication line has not been connected to said connector as a result of the decision made by said connection status deciding unit.

2.   The information processing equipment according to
claim 1, wherein said transmission/reception mechanism has
a plurality of operation modes having different levels of
power consumption, and when the initialization processing
5   is not carried out based on the confirmation that said
communication line has not been connected to said connector
as a result of the decision made by said connection status
deciding   unit,   said   control   unit   shifts   said
transmission/reception mechanism to an operation mode in
10   which power consumption is lower.

3.   The information processing equipment according to
claim 1, wherein said connection status deciding unit
controls said transmission/reception mechanism to transmit
15   a predetermined test signal, measures an echo of this test
signal, and compares a size of energy of the measured echo
with a predetermined reference value, and when the energy
of the measured echo is larger than the reference value,
said connection status deciding unit decides that said
20   communication line has not been decided.

4.   The information processing equipment according to
claim 1, wherein said connection status deciding unit
comprises a detecting switch that mechanically detects a
25   connection of said communication line to said connector,

and a deciding circuit that decides a connection status of said communication line based on a result of the detection by the detecting switch.

5   5.   An information processing equipment that carries out a communication path establishment processing at the time when a power source is turned on, the information processing equipment comprising:

    a   transmission/reception   mechanism   that
10   transmits/receives data through a communication line; and

    a   control   unit   that   controls   said transmission/reception   mechanism   to   repeat   an initialization   processing   with   a   prescribed   number separately determined as an upper limit, thereby to try to
15   establish a communication path,

    wherein said control unit determines the prescribed number   according   to   a   cause   of   a   past   failure   in   the initialization processing and/or a status of a power source at that time.

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6.   An information processing equipment that carries out a communication path establishment processing at the time when a power source is turned on, the information processing equipment comprising:

25   a   transmission/reception   mechanism   that

transmits/receives data through a communication line; and

a control unit that controls said transmission/reception mechanism to carry out an initialization processing thereby to try to establish a communication path, and when the communication path establishment has been a failure, that tries to establish a communication path again after a lapse of a waiting period determined separately, wherein said control unit determines a length of the waiting period according to a cause of a past failure in the initialization processing and/or a status of a power source at that time.

7. A signal conversion equipment that converts a transmission data signal input from a communication control unit prepared separately, transmits a converted signal through a communication line, and receives the signal transmitted through said communication line, converts this signal, and outputs the converted signal to said communication control unit, under a control of said communication control unit, the signal conversion equipment comprising: a connector connected with said communication line according to the needs; a transmission/reception mechanism that transmits/receives data through said communication line connected to said connector; a detecting switch that mechanically detects whether said communication

line has been connected to said connector or not; and a deciding circuit that decides on the connection status based on a result of the detection carried out by the detecting switch, and outputs a predetermined signal showing a result of the decision to said communication control unit.

8. The signal conversion equipment according to claim 7, wherein said transmission/reception mechanism has a plurality of operation modes having different levels of power consumption, and this operation mode is changed based on an instruction from said communication control unit.

9. A signal conversion equipment that converts to match a communication line a transmission data signal input from a communication control unit prepared separately, transmits a converted signal through said communication line, and receives the signal transmitted through said communication line, converts this signal to match said communication control unit, and outputs the converted signal to said communication control unit, under a control of said communication control unit, the signal conversion equipment comprising: a connector connected with said communication line according to the needs; a transmission/reception mechanism that transmits/receives data through said communication line connected to said connector; a detecting

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switch that mechanically detects whether said communication line has been connected to said connector or not; a memory that can be accessed from said communication control unit; and a deciding circuit that decides on the connection status

5   based on a result of the detection carried out by the detecting switch, and outputs a result of the decision to the memory.

10.   The signal conversion equipment according to claim 9, wherein said transmission/reception mechanism has a

10   plurality of operation modes having different levels of power consumption, and this operation mode is changed based on an instruction from said communication control unit.

11.   A communication method that tries to keep a status

15   that a communication path is normally connected by suitably carrying out an initialization processing for establishing a communication path, wherein whether a communication line has been connected or not is confirmed, and when it has been confirmed that said communication line has not been connected,

20   the initialization processing is not carried out.

12.   The communication method according to claim 11, wherein the confirmation is carried out such that a predetermined tone signal is transmitted, and an echo of

25   this tone signal is measured, and when the size of energy

of this echo is larger than a predetermined value, a decision is made that said communication line has not been connected.

13. The communication method according to claim 11, wherein the confirmation is carried out based on a result of a mechanical detection of a connection status of said communication line.

14. A communication method that tries to establish a communication path by repeating an initialization processing for establishing a communication path with a prescribed number separately determined as an upper limit, wherein the prescribed number is determined according to a cause of a past failure in the initialization processing and/or a status of a power source at that time.

15. A communication method that tries to establish a communication path by carrying out a predetermined initialization processing, and when the establishment has been a failure, the establishment of a communication path is tried again after a lapse of a waiting period separately determined, wherein the waiting period is determined according to a cause of a past failure in the initialization processing and a status of a power source at that time.

16.   A computer readable medium for storing instructions,
which when executed on a computer, causes the computer to
realize a communication method that tries to keep a status
that a communication path is normally connected by suitably
carrying out an initialization processing for establishing
a communication path, wherein whether a communication line
has been connected or not is confirmed, and when it has been
confirmed that said communication line has not been connected,
the initialization processing is not carried out.

17.   A computer readable medium for storing instructions,
which when executed on a computer, causes the computer to
realize a communication method that tries to establish a
communication   path   by   repeating   an   initialization
processing for establishing a communication path with a
prescribed number separately determined as an upper limit,
wherein the prescribed number is determined according to
a cause of a past failure in the initialization processing
and/or a status of a power source at that time.

18.   A computer readable medium for storing instructions,
which when executed on a computer, causes the computer to
realize a communication method that tries to establish a
communication   path   by   carrying   out   a   predetermined
initialization processing, and when the establishment has

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been a failure, the establishment of a communication path is tried again after a lapse of a waiting period separately determined, wherein the waiting period is determined according to a cause of a past failure in the initialization

5 processing and a status of a power source at that time.

19.   A computer program for causing the computer to realize a communication method that tries to keep a status that a communication path is normally connected by suitably

10 carrying out an initialization processing for establishing a communication path, wherein whether a communication line has been connected or not is confirmed, and when it has been confirmed that said communication line has not been connected, the initialization processing is not carried out.

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20.   A computer program for causing the computer to realize a communication method that tries to establish a communication path by repeating an initialization processing for establishing a communication path with a

20 prescribed number separately determined as an upper limit, wherein the prescribed number is determined according to a cause of a past failure in the initialization processing and/or a status of a power source at that time.

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21.   A computer program for causing the computer to realize a communication method that tries to establish a communication path by carrying out a predetermined initialization processing, and when the establishment has been a failure, the establishment of a communication path is tried again after a lapse of a waiting period separately determined, wherein the waiting period is determined according to a cause of a past failure in the initialization processing and a status of a power source at that time.